

Initial Environmetric Studies of the SETA-Form C

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ABSTRACT

The Salter Environmental Type Assessment (SETA) was designed to measure the “personalities” of behavioral environments and to work in conjunction with the Myers-Briggs Type Indicator®. The Form C revision of the SETA, which launched in 2012, involved increasing the number of scored items and moving the assessment to online administration. Initial results from environmetric studies of scores from Form C show that the SETA’s measurement properties remain consistent with previous versions and support its overall utility.

PROBLEM

SETA Form C (2012) is the revised version of the SETA-B (2000). The changes include more scored items and online administration of the instrument. What is not clear is **whether these changes have effected the environmetric properties** (i.e., measurement issues related to environmental assessment) of the scores produced by the SETA-C.

PURPOSE

Because instrument design is a multi-stepped process, an initial screening of the new version is key to its later use in research. The purpose of this study was to conduct an **initial examination of the environmetric properties** of SETA-C before moving to online administration.

RELEVANT LITERATURE

Jungian and Personality Psychology

- Jung (1971). *Psychological Types*
- Murray (1938). *Explorations in Personality*
- Myers & Myers (1985). *Gifts Differing*

Environmental-Interactional Psychology

- Levy-Leboyer (1992). *Psychology and Environment*
- Lewin (1936). *Principles of Topological Psychology*
- Magnusson & Allen (1983). *Human Development*

Assessment & Measurement

- Brennan (2001). *Generalizability Theory*
- Conyne & Clack (1981). *Environmental Assessment and Design*
- Moos (1979). *Evaluating Educational Environments*
- Myers et al. (1998). *MBTI Manual*

Environmental Type Theory

- Salter (2012). *Environmental Types: The Personalities of Everyday Places* (on iBookstore)

Environmetric Studies of the SETA-B

- **Generalizability-Reliability** (Salter, 2003)
- **Factorial Validity** (Salter & Vandiver, 2002)
- **Concurrent Validity** (Salter, 2002, 2012b; Salter & Junco, 2007; Salter, Junco, & Irvin, 2004; Salter & Irvin, 2003)
- **Predictive Validity/Applied Studies** (Allread & Marras, 2006; Karras, 1990; Persaud & Salter, 2003; Salter, 2000, 2003a, 2012a).

RESEARCH QUESTION

What are the basic **environmetric properties** of the SETA-C (score reliability, item/scale analysis, factorial validity) in a sample of adults?

PROCEDURES

Reanalyzed all scored and test items on the 4 scales of SETA-B (*i:s* = 100) collected over the past 10 years from 4 behavioral domains (*p:s* = 938).

- Education
- Living
- Work
- Small Group

DATA ANALYSIS

Used an **iterative item-scale assessment process** to determine final set of items for SETA Form C (*i:s* = 76), which were examined with the specific analytical techniques that appear below.

FINDINGS

A comparison of the same statistics on the new 76 item Form C with the 60 item Form B.

	Form C	Form B
Reliability Estimates (α)		
EI	.86	.81
SN	.79	.71
TF	.86	.83
JP	.84	.71
Range of Corrected Item-Scale Correlations (r)		
EI	.34-.64	.15-.62
SN	.24-.52	.15-.46
TF	.35-.58	.28-.58
JP	.32-.58	.03-.53
Range of Structure Coefficients (Factor Analysis)		
EI	.39-.70	.17-.74
SN	.32-.64	.20-.66
TF	.41-.67	.35-.69
JP	.39-.68	.04-.70

Sample Items

	Phrase Questions	Word Pairs
EI	1. The atmosphere of this environment is typically (A) intimate. (B) sociable.	21. (A) bright (B) subdued
SN	14. In this environment , which is a bigger priority? (A) prior commitments (B) new opportunities	30. (A) facts (B) Imagination
TF	15. The nature of this environment is (A) supportive. (B) impersonal.	47. (A) loyal (B) critical
JP	4. This environment is characteristically (A) wild. (B) civilized.	20. (A) random (B) stable

LIMITATIONS

Environmetric Considerations

- Analyzing items-by-scale does not take into account the **multi-dimensional measurement model**.
- May not have had a **sufficient diversity** in the environmental settings to test the measurement model fully.
- No accounting of possible **personality influences** on responses was made.

CONCLUSION

The 19 items-per-scale format was an **improvement** on basic environmetric aspects of the SETA Form C.

SOCIAL CHANGE IMPLICATIONS

The **person-environment interaction** framework undergirds most professional areas that seek to improve the functioning of people. The SETA expands the usefulness of the MBTI®, one of most successful measures of the person, to allow increased insights into the “**personalities**” of **everyday places** in which and with which people interact.

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SETA Scales

Extraversion – Introversion (EI)

This dimension addresses the bipolar nature of the relative obtrusiveness - the push/pull of psychic energy - in a behavioral environment.

Sensing – Intuition (SN)

This perceptive environmental function reflects a convergence/divergence dichotomy - a focus on the elements in a setting or on the associations between elements.

Thinking – Feeling (TF)

This judging functions aligns with the way that an environment maintains a reality, through either a logical/ empirical or a value-person oriented approach.

Judging – Perceiving (JP)

This dimension addresses the interactive functions within an environment: construction of a recognizable repertoire of elements and maintenance of a predictable level of organization.